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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,932	10/30/2003	James F. McGuckin JR.	1255	1044
7590 NEIL D. GERSHON REX MEDICAL 1011 HIGH RIDGE RD Stamford, CT 06905			EXAMINER WEBB, SARAH K	
			ART UNIT 3731	PAPER NUMBER
			MAIL DATE 01/25/2011	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/696,932

Applicant(s)

MCGUCKIN ET AL.

Examiner

SARAH WEBB

Art Unit

3731

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-9, 11, 13-16, 18, 21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-9, 11, 13-16, 18, 21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/5/2011 has been entered.

Response to Amendment

2. The amendment filed 1/5/2011 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the addition of the language "unattached free end" to claims 18, 21, and 22 is not supported by the specification. Applicant is required to cancel the new matter in the reply to this Office Action.

Response to Arguments

3. Applicant's arguments with respect to claims 18, 21, and 22 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 5, 6, 8, 11, 13, 15, and 16 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for an embodiment with only ribs extending between adjacent struts (Figures 21A-21C), does not reasonably provide enablement for an embodiment with the combination of the ribs with the any of the features recited in claims 5, 6, 8, 11, 13, 15, and 16. The specification discloses the ribs (192) in a separate embodiment from out of phase struts (Figure 19), varied width struts (Figures 11-13), roughened surface (Figures 15A-C), barbs (Figures 16A-B). Therefore, the specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 recites the limitation "an angled portion of the strut" in line 3. There is insufficient antecedent basis for this limitation in the claim.

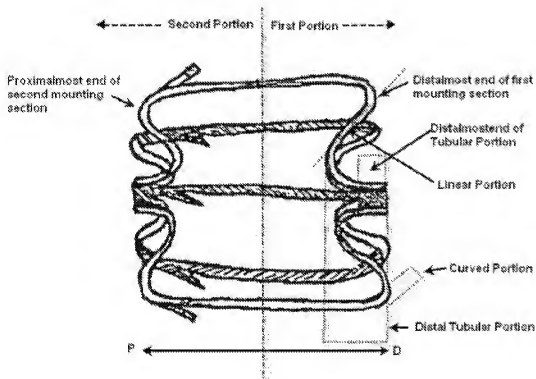
Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-4, 6, 7, 9, 11, 13, 14, 16, 18, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,994,092 (van der Burg et al.) in view of USPN 6,241,746 (Bosma et al.).

Van der Burg discloses a vessel filter in Figures 30, 31, and 35 comprising a mounting section (middle section) and two filtering sections at either end of the device. The filtering sections are defined by a plurality of S-shaped struts. The struts are spaced circumferentially about 60 degrees apart and have a plurality of vessel engaging members (195) with pointed ends. Regarding the limitation that no external force is required to move the filter from an insertion configuration to a second deployed configuration, van der Burg explains that the device can be made of self-expanding material, such as Nitinol (column 6, lines 48-55). Van der Burg teaches that this type of expandable device for placement against a bodily tubular structure with an S-shape end portion provides an elongated mounting section, which improves contact area (Figure 35; Column 18, Lines 34-55). In regard to applicant's extensive claim language defining the relationship between the filter sections and mounting sections, see the Figure below depicting how the S-shape structure of Van der Burg's filter section includes all the claimed components.



At least the two bottom struts on the right are shown distal of the distalmost point of the tubular section. While van der Burg does not explicitly illustrate that the ends of the tubular sections are closer to the center of the filter than the ends of the mounting sections for each strut, van der Burg does state that it is desirable to increase the contact area of the struts (column 18, Lines 34-55). One of ordinary skill in the art would be capable of modifying the struts to increase the length of the parallel ribs, which would also cause the ends of the mounting sections to be further from the center of the filter than the ends of the tubular sections. This slight modification would also result in the ends of the tubular sections being in line with the linear portions.

Van der Burg fails to include ribs extending from adjacent struts that terminate at a joint that is free from connection to the struts. Bosma et al. discloses another filter

cage structure in Figures 1-43 that includes a plurality of longitudinal struts (12) forming a middle mounting section and two filtering end sections. Bosma teaches that the filter structure should include circumferential resilient supports to aid in holding the filter in place within the vessel (column 2, lines 64-68). As clearly shown in Figures 1-4, the circumferential ribs have two sections joined at a region that is unattached to the struts (12). It is understood that the circumferential ribs would be curved, as viewed along the longitudinal axis (Figure 4A). It would have been obvious to one of ordinary skill in the art at the time the invention was made include ribs in the van der Burg filter, as taught by Bosma, in order to provide radial support to the longitudinal struts and maintain its position in the vessel.

Regarding claim 16, Figures 30B and 30D of van der Burg show that the struts vary in width along their length. Regarding claim 11, it would have been obvious to modify the struts to have angled portion with a width less than the width of the straight portion of the mounting section, as this modification merely requires a change in the size of a component, which is generally considered to be within an ordinary skill level in the art.

Regarding claim 18, Bosma teaches that a method of delivering a self-expanding filter in a collapsed configuration in a tubular catheter to a surgical site is known in the art, as well as the subsequent step of removing the device from the patient's body (column 1 Background section).

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over van der Burg et al. in view of Bosma '746, as applied to claim 3 above, and further in view of USPN 6,443,972 (Bosma et al.).

The modified van der Burg filter fails to meet the requirement that the longitudinal struts have a roughened surface. Bosma '972 teaches that struts of a filter can have a roughened surface (30) (see Figures 9A-C) to increase retention of the filter within the body lumen (column 6, lines 13-21). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the van der Burg filter so that the struts include a roughened surface, as taught by Bosma '972, as combination of known elements obtains the predictable result of enhancing retention of the device within the body lumen.

8. Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Burg et al. in view of Bosma et al., and in further view of Gilson et al (US Patent Application Publication 2002/0058911).

The modified van der Burg filter fails to meet the requirement that the ends of at least one strut are out of phase, but Gilson teaches that it is known to form longitudinal struts of an embolic filter this way (see Figures 15-22). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the van der Burg filter to have at least one strut with ends that are out of phase, as taught by Gilson, as this modification involves a mere substitution for one known strut shape for another with predictable results.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARAH WEBB whose telephone number is (571) 272-5749. The examiner can normally be reached on 9:00am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anh Tuan Nguyen can be reached on (571) 272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. W./
Examiner, Art Unit 3731

/TODD E. MANAHAN/
Supervisory Patent Examiner, Art Unit 3776